UCLA Health

Department of Medicine
**2023 Solomon Scholars Research Program**

# Abstract Form

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| **Project Title:** | A case report on diabetic lumbrosacral plexopathy |

**Research Category (please check one):**

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| ☐ | **Original Research** | ☒ | **Clinical Vignette** | ☐ | **Quality Improvement** | ☐ | **Medical Education Innovation** |

## Abstract


**Introduction:**
Diabetic lumbosacral radiculoplexus neuropathy (DLSRPN) is a type of proximal diabetic neuropathy caused by a variety of mechanisms. It is a very rare and is normally a disease of exclusion characterized by neuropathy, autonomic dysfunction and in some cases weight loss. Here we present a case of a 50 yr male who presented with DLSRPN.

**Case Presentation:**
50-year-old Caucasian male with a past medical history of type 2 diabetes, perineal abscess, and bilateral lower and upper extremity weakness with pain who comes into the ED following a neurology clinic visit. A stat lumbar puncture was requested by the neurology clinic as well as treatment with IVIG 400 mg/kg/day due to possible Guillain-Barré syndrome. Patient had been going to a neurologist due to a progressive bilateral LE weakness, starting with his left leg and slowly progressing to his right. Upper extremity weakness followed. His symptoms had worsened, requiring the use of a wheelchair. He experienced approximately 60 lbs weight loss and increased fatigue. He denied any bladder or bowel symptoms.

Vitals were stable, and a physical exam revealed mildly atrophic bilateral lower extremities. Further examination revealed that the bilateral upper extremities were +4/5 in terms of motor functions, and the bilateral lower extremities had impaired sensation with +3/5. Both proximal and distal muscle groups had limited range of motion due to pain. Deep tendon reflexes were absent in both the bilateral upper and lower extremities.

Patients' CBC, autoimmune titers and urine toxicology screen were unremarkable. HbA1c was 6.5 % with a glucose level of 151 mg/dL. An X-ray of the chest showed no evidence of active cardiopulmonary disease. A lumbosacral spine X-ray showed no evidence of fractures. MRI of the pelvis demonstrated increased signal in the paraspinal muscle and bilateral abductor muscles. CSF findings showed slightly elevated glucose levels of 84 mg/dL and an elevated protein level of 148 mg/dL. Prior EMG findings revealed moderate to severe active denervation in the bilateral tibialis anterior, peroneus longus, and left vastus medialis, with no recruitment. Minimal recruitment was noted in the left rectus femoris, with moderate chronic denervation in the bilateral gastrocnemius and right vastus medialis.

Diagnosis of DLSRPN was made with initiation of gabapentin (1200 mg TID) for the management of his bilateral leg pain and continuation of IVIG treatment for 5 days. Physical therapy was continued with noticeable improvement. Patient was discharged home with mycophenolate mofetil 250 mg BID and an outpatient neurology follow-up.

**Discussion**:
DLSRPN is typically diagnosed by exclusion of other diseases. It has a nonspecific clinical presentation. The incidence of DLRPN is 2.79 per 100,000 people per year affecting 1 % of diabetic patients. Regardless, physicians should be aware of how to recognize and treat this disease. A detailed history and physical with appropriate lab analysis and imaging studies will assist in narrowing the differential.

**Conclusion**:
Treatment goals of DLRPN involve alleviating the neurological symptoms. DLRPN patients improve but restoration of full function is not always observed.